City of Indianapolis
Department of Public Works
Raw Sewage Overflow Control Program

Office of Environmental Services

Industrial Pretreatment Permitting Policy and Process

January 2005

INDIANAPOLIS
CLEAN STREAM TEAM

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City of
Indianapolis
Bart Peterson, Mayor

January 18, 2005

Mr. Vince Parker, Chairman
Industrial Dischargers Advisory Committee
c/o Eli Lilly & Co
Lilly Corporate Center 4003
Indianapolis, IN 46285

RE: Office of Environmental Services Industrial Pretreatment Permitting Policy and Process.

This memorandum and associated attachments describe the policy and process used by the Department of Public Works' Office of Environmental Services to make decisions on new or increased discharges by the industrial pretreatment community.

It is the policy and goal of the City of Indianapolis to encourage economic growth and vitality and to be able to compete both globally and regionally for new employers and employees. The Department of Public Works (DPW) works toward this goal by building, operating and maintaining high quality infrastructure for transportation, stormwater and sanitary sewage.

DPW's goals and objectives also include the need to improve surface water quality, reduce combined sewer overflows – especially those that occur in neighborhoods – and meet state and federal regulatory requirements associated with its Belmont and Southport advanced wastewater treatment plants, sewage collection system, and stormwater program.

To further these goals, DPW's Office of Environmental Services (OES) is responsible for implementing an industrial pretreatment program to ensure compliance with regulatory requirements and enable the safe and effective operation of the city's wastewater treatment and collection systems.

Industrial Pretreatment Program Implementation Policies and Principles:

1. The industrial pretreatment permitting process should be documented clearly and result in technically sound and timely decisions.

Department of Public Works

2460 City County Building (317) 327-4000
200 East Washington Street (fax) 327-4984
Indianapolis, Indiana 46204 (TDD) 327-5186
indygov.org

2. The city's goal is to make permitting decisions within 30 days after receiving an application. However, a small percentage of decisions may require up to 90 days due to concerns associated with the attached decision-making factors. Decisions should be in writing and should state the basis and justification for the decision.

3. The permitting process should be characterized by open communication between the permit applicant and city staff. The permittee will be notified promptly when the city identifies issues that may delay or cause modifications to a permit application. DPW staff will work with the permittee to find solutions to identified issues or concerns.

4 Permitting decisions will be based on technically sound analysis of available data and information. This information includes data on current water quality and infrastructure conditions as well as future plans for the collection system and advanced wastewater treatment (AWT) plants.

5 Permit decisions should be fair and equitable to both new and existing industrial dischargers.

6. The process should be predictable so that applicants will understand whether new or increased discharges are likely to be approved.

7 The city should accommodate and plan for future industrial growth. The goal of the city's long-term plans will be to provide sufficient baseload capacity to accommodate industrial and residential growth, in addition to required wet weather capacity needs.

8 Where possible, industries are encouraged to consult with the city well in advance of plans for major increases in flow or load so the city can incorporate these plans into its capital improvement program budget and schedule, if necessary. An industry may be asked by the city to provide capital funds to build the necessary projects to address industry's needs and the needs of the affected stream.

9. Appeals of the city's decisions may be made to the director and the Board of Public Works as described under Section 671-57 of the municipal code.

Process and Criteria for Decision-making

Attached to this memo is a flow chart describing the process used by the city to evaluate industrial pretreatment permit applications. Also attached is a list of factors and criteria used to evaluate permit applications as they relate to wet weather conditions in the combined sewer area and effective treatment of industrial discharges by the AWT plants. The decision-making criteria are used to evaluate each permit application for its potential impact on treatment capacity, combined sewer overflows and receiving streams. If a permit application raises major concerns across multiple decision-making factors, modifications to the permit application may be required.

This policy will be periodically updated as the city's long-term control plan is implemented and improvements are made to collection and treatment facilities.

If you have any questions about the permitting process or how decision-making factors are used, please contact the OES Administrator at 317-327-2237.

Sincerely,

James A. Garrard, Director
Indianapolis Department of Public Works

Cc: John Chavez
Mona Salem
Carlton Ray
Tim Heider
Jodi Perras

Industrial Pretreatment Permitting Process
Decision-making Factors and Criteria

	Factors	Criteria	How Criteria are Applied
	Location of Discharge and Impact on Receiving Stream		
1	Number of CSOs between discharger and AWT plant[1]	<2	Minor concern
		2 to 10	Moderate concern
		>10	Major concern
2	Frequency of Discharges from affected CSOs[1]	>40 events/year	Major concern
		4-39 events/year	Moderate concern
		<4 events/year	Minor concern
3	Magnitude of Discharges from Downstream CSOs (overflow volume MG/year)[1]	Do affected CSOs include one or more of the 15 largest overflow points (based upon average annual overflow volume)?	If yes, major concern.
		How many million gallons a year are discharged from the affected CSOs?	>100 MG/year, major concern; 50-99MG/year, moderate concern; < 50 MG/year, minor concern
4	Magnitude of Pollutant Load from CSOs (Toxicity: load/day and concentration)	Likelihood of Significant Industrial Concentration (Is Industrial Concentration > 1.1, as determined by the toxics computation worksheet?)	If the answer to any of the 3 questions on magnitude of pollutant load from CSOs is yes and the overflow frequency from any affected CSOs is > 40/year, major concern. If yes and overflow frequency >4 but <39/year, moderate concern. If yes and overflow frequency ≤ 4/year, minor concern
		Likelihood of Significant Industrial Flow Percentage (Is the Percentage > 1.0%?)	
		Do any of the affected CSOs rank in the top 5 as determined by the 2004 analysis of industrial user discharge characteristics?	
5	Stream Reach Characteristics[1]	Does affected stream segment flow through areas with opportunities for recreational use?	If yes, moderate to major concern
		Flow levels in receiving stream	If $7Q_{10}$ < 5 cfs, major concern; < 40 cfs moderate concern; >41 cfs, minimal concern
6	Conventional pollutant parameters found in the affected CSOs (BOD, TSS, Other)	Would the increased load cause or contribute to NPDES permit violations?	Qualitative analysis of new pollutant load on stream.

[1]For data related to each stream, see http://www.indygov.org/eGov/City/DPW/Environment/Wastewater/Pretreatment/home.htm

Industrial Pretreatment Permitting Process
Decision-making Factors and Criteria

	Factors	Criteria	How Criteria are Applied
	Feasibility		
7	What is physically possible to reduce overflows?	Is sufficient land/space available to build facilities to hold, divert or decrease flows?	Best engineering judgment used to determine feasibility of options
		Does the facility have the ability currently to treat or hold the flow?	
		Is it physically possible to eliminate / redirect clearwater flows?	
8	Economic feasibility	What is the projected cost to comply with wet weather requirements? Cost to facility, city, others?	Best engineering judgment used to determine feasibility of options
9	Can discharge be piped or redirected around CSOs?	Yes or No?	If yes, economic feasibility of such an option considered.
10	Are there other solutions that might alleviate CSOs?	Varies	City to work with permit applicant to find other solutions
	AWT Issues		
11	AWT Treatability	Is the AWT capable of treating the new load and meeting NPDES permit requirements?	AWT must be capable of meeting NPDES permit requirements. If no, city may consider incorporating needed improvements into capital planning.
12	Economic feasibility	What is the cost to the city to treat the additional load?	Cost to treat should be recovered from the permit applicant through user fees.
13	Physical feasibility	If construction is required at the AWT plant, is it physically possible to build facilities to treat the increased load?	If no, permit application may be denied or flow rerouted to a facility that can treat the increased load

Industrial Pretreatment Permitting Process

Permit Application is received from Industry

Application is reviewed *(or re-reviewed in such cases where additional information is requested & submitted)* for completeness

Request additional information from Industry for inclusion with application

NO

Is application complete?
Assessed based on reason for submittal either:
1. Change in Federal Regulation; or
2. Process Wastewater Changes

YES

Arrange Inspection of Facility

a. Confirm application information
b. Identify appropriate sampling locations
c. Inspect environmental stewardship of chemicals & process

UW Confirm Application is Accurate based on inspection and Review of Municipal & Federal Pretreatment Regulation for applicable regulations and Industrial Pretreatment Permitting Decision Making Factors and Criteria.

YES

NO

Inspection Findings & Application returned to Industry for Re-submital

UW Draft Permit created based on results of review from previous step.

Draft Permit sent to DPW/OES for OES Administrator Signature

OES Administrator reviews (Consideration of Regulations and Industrial Pretreatment Permitting Decision-making Factors and Criteria.)

Does OES Administrator determine consultation with DPW Engineering & Operations is required?

NO

YES

Industry notified review expanded to include DPW

Signed Permit sent to UW

UW Assembles Permit Packet including Reporting Forms.

Copies of Permit Packet are made and distributed to DPW Contract Compliance, DPW OES, and UW

Approved permit is sent via certified mail to permitee (2)

YES

Draft permit held and consultation with DPW Engineering and Operations is completed. Industry consultation as necessary or if requested.

After consultation is completed, do all parties find the permit acceptable?

NO

Industry notified Permit Application will require Director's Input

Permit issue elevated to Director of DPW for consultation and approval Industry Consultation necessary or if requested.

Is permit acceptable to Director of DPW?

NO

Permit Denied - Industry Notified in writing (w/ basis for finding) (1)

Industry (2)

MODIFY

Industry notified Permit Application will require modification

MODIFY

(1) Permit Denials can be issued at any of the review steps but have been omitted from this flow chart for clarity.
(2) Industry has the right to appeal the denial or specific conditions of an approved permit in accordance with IMC 671-57.

Material to be posted on website at
http://www.indygov.org/eGov/City/DPW/Environment/Wastewater/Pretreatment/home.htm

Fall Creek

Criteria	103 [3] 3900 N. Sherman	216 Crittenden Ave. and 42nd St.	135 Orchard Ave. and 39th St.	141 College Ave. and 38th St.	066 Fall Creek Blvd. and Balsam Ave.	065 [3] Sutherland Ave. and 34th St.	142 College Ave. and 38th St.	064 Winthrop Ave. and 34th St.	063 FCPND and 32nd St.	63A FCPND and 32nd St.	062 Guilford Ave. and 30th St.	213 [3] Hillside Ave. and 29th St.	061 FCPND and Ruckle St.
Overflows per year (average) [1]	9	44	38	14	42	33	29	36	52	52	22	3	84
Annual Overflow Volume Range (MG/year) [1]	5-6	45-61	77-104	37-49	26-35	110-148	36-49	5-7	151-204	14-19	119-161	<1	254-344
Other Discharges													
Location													
Type													
Factors that support/encourage recreational use													
School	no	no	no	no	no	no	no	no	no	no	no	no	no
Park	no	State Fairgrounds	State Fairgrounds	no	no	no	no	no	no	no	no	no	no
Trail	no	no	no	no	no	no	no	no	no	no	no	no	no
Other							open grassy area	open grassy area					
Factors that prohibit/discourage recreational use													
Warning Signs/City Ordinance [2]	yes	could not locate	yes	yes	yes, deep in woods	could not locate	yes	yes	yes	yes	could not locate	could not locate	could not locate
Fence	no	no	no	no	yes	yes	no	no	no	no	no	no	no
Steep Banks	no	yes	no	yes	gradual	yes	no	no	gradual	gradual	gradual on west side	gradual on west side	gradual
Other		dense woods	no	dense vegetation	dense vegetation	dense vegetation	dense vegetation	dense vegetation	dense vegetation	dense vegetation	dense vegetation on west side, wall on east side	dense vegetation on west side, wall on east side	
Access													
North Bank	Easy	Extremely Difficult	Extremely Difficult	Moderately Difficult	Moderately Difficult	Extremely Difficult			Extremely Difficult	Extremely Difficult	Extremely Difficult	Moderately Difficult	Extremely Difficult
South Bank	Easy	Extremely Difficult	Moderately Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult			Extremely Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult
Stream's Physical Attributes													
Depth	~ 6 in.		~ 3 ft.	~ 2 ft.	~2-3 ft.	> 7 ft.	~2-3 ft.	~2-3 ft.	~2-3 ft.	~2-3 ft.	3 ft.	variable	3 ft.
Velocity	slow	could not see creek	slow	slow	slow	quick	slow	slow	slow	slow	slow	moderate	slow
Width	5 ft.		50 ft.	50 ft.	50 - 60 ft.	65 ft.	50 - 80 ft.	50 - 80 ft.	50 ft.	50 ft.	60 ft.	50 ft.	40 - 50 ft.
Substrate	rocky		could not distinguish	could not distinguish	could not distinguish	sandy	could not distinguish	could not distinguish	rocky by creek banks	rocky by creek banks	rocky	sandy	rocks by banks
Safety	OK		no	no	no	no	no	no	no	no	no	no	no
Land Use													
Public	no	yes	yes	yes	no	no	no	no	no	no	yes	yes	no
Residential/Wooded	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Industrial/Commercial	no	no	no	no	no	no	no	no	no	no	no	no	no
Stream Use													
Habitat for Aquatic Species													
Natural riparian		yes	yes	yes	yes	yes	yes	yes	yes	yes	yes, on west side		yes
Partially Developed (Subdivision)	yes										yes		
Fully Urbanized Development												yes	
Other Comments						Access extremely difficult, dense vegetation, steep slopes, restricted access			Dangerous crossing Fall Creek Pkwy. to get to CSO, guard rail is very close to road.				

Notes:
1. Overflows per year and volume range were revised June 2004.
2. New bilingual warning signs are being placed at all CSO locations.
3. The data for this CSO was collected in June 2004.
4. Pictures not taken by CSO, additional river pictures.

INDIANAPOLIS CSO LONG-TERM CONTROL PLAN

Use Attainability Analysis

Description of Marion County Streams

Fall Creek

Criteria	059 FCPND and Central Ave.	060 Sutherland Ave. and Central Ave.	058 28th St. and New Jersey St.	057 28th St. and Washington Blvd.	055 28th St. and Talbot St.	132 FCPND and Pennsylvania St.	054 FCPND and Meridian St.	053 FCPND and Illinois St.	131 Fall Creek Blvd. and Capitol Ave.	052 Fall Creek Blvd. And Boulevard Pl.	051 Capitol Ave. and 22nd St.	[4] Indianapolis Ave. and Fall Creek	50A [3] Northwestern Ave. and 24th St.
Overflows per year (average) [1]	8	33	28	1	21	23	4	5	21	43	40		38
Annual Overflow Volume Range (MG/year) [1]	1-2	15-20	2-3	<1	1-1	4-6	1-2	2-3	4-5	41-55	251-339		56-76
Other Discharges													
Location													
Type													
Factors that support/encourage recreational use													
School	no	no	no	yes, child care center	no	no	yes, Ivy Tech	no	no	no	no	no	no
Park	no	no	no	no	no	no	no	open grassy area	no	no	no	no	yes
Trail	no	no	no	along south side	no	no	no	no	no	no	no	no	no
Other										church	alley	dam	
Factors that prohibit/discourage recreational use													
Warning Signs/City Ordinance [2]	could not locate	could not locate	yes	could not locate	yes	yes	yes	yes	yes	yes	yes	N/A	yes
Fence	no	no	no	no	guard rail	guard rail	no	no	no	no	no	no	no
Steep Banks	gradual	gradual	wall on south side	wall on north side	yes	yes	walls	gradual	no	yes	gradual	gradual	no
Other	dense vegetation on east side	dense vegetation on east side	vegetation on north side	heavily wooded	dense vegetation	dense vegetation	dense vegetation	dense vegetation of NW and SW sides, wall on NE and SE sides	vegetation on SW side	dense vegetation	big rocks		below water level
Access													
North Bank	Extremely Difficult	Extremely Difficult	Moderately Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult	Easy	Easy	Extremely Difficult	Extremely Difficult	Moderately Difficult	Easy
South Bank	Extremely Difficult	Extremely Difficult	Extremely Difficult	Moderately Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult	Easy	Moderately Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult	Easy
Stream's Physical Attributes													
Depth	3 ft.	3 ft.	~ 2 ft.	~ 2 ft.	could not	could not	3 ft.	2 - 3 ft.	2 - 3 ft.	could not	1 - 3 ft.	1 - 3 ft.	> 10 ft.
Velocity	slow	slow	slow	slow	see creek	see creek	slow	slow	slow	see creek	slow	1 -2 fps (higher velocity because of dam)	moderate
Width	50 -60 ft.	50 -60 ft.	50 ft.	50 ft.			creek is split, 25 ft. on each side	100 ft.	100 ft.		80 - 100 ft.	80 - 100 ft.	60 ft.
Substrate	rocky	rocky	very muddy by bank	very muddy by bank			could not distinguish	could not distinguish	could not distinguish		sand and rocks	sand and rocks	sandy
Safety	no	no	no	no			no	no	no		no	no	no
Land Use													
Public	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Residential/Wooded	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Industrial/Commercial	no	no	no	no	no	no	no	no	no	no	no	no	no
Stream Use													
Habitat for Aquatic Species													
Natural riparian	yes	yes	yes	yes				yes	yes		yes	yes	
Partially Developed (Subdivision)													
Fully Urbanized Development			yes on south side	yes on north side			yes	yes (on NE and SE sides)					yes
Other Comments													

Notes:
1. Overflows per year and volume range were revised June 2004.
2. New bilingual warning signs are being placed at all CSO locations.
3. The data for this CSO was collected in June 2004.
4. Pictures not taken by CSO, additional river pictures.

Fall Creek

Criteria	050 Fall Creek Blvd. and Burdsal Pkwy.	[4] Montcalm St. and 21st St.	[4] 16th St. and Aqueduct St.	049 Stadium Dr. and Fall Creek	210 Indiana Ave. and 10th St.
Overflows per year (average) [1]	42			18	54
Annual Overflow Volume Range (MG/year) [1]	103-140			2-2	66-89
Other Discharges					
Location					
Type					
Factors that support/encourage recreational use					
School	no	no	no	no	no
Park	yes	no	no	no	no
Trail	no	no	no	Fall Creek greenways	Fall Creek greenways
Other					
Factors that prohibit/discourage recreational use					
Warning Signs/City Ordinance [2]	could not locate	N/A	N/A	yes	yes
Fence	no	no	no	no	no
Steep Banks	no	no	gradual	gradual	gradual
Other	dense vegetation	vegetation	dense vegetation	vegetation	vegetation
Access					
North Bank	Moderately Difficult	Moderately Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult
South Bank	Extremely Difficult	Moderately Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult
Stream's Physical Attributes					
Depth	~ 3 ft.	1 - 3 ft.	1 - 3 ft.	~2-3 ft.	~2-3 ft.
Velocity	slow	slow	slow	slow	slow
Width	50 - 60 ft.	80 - 100 ft.	80 - 100 ft.	50 - 60 ft.	50 - 60 ft.
Substrate	sand and rocks	sand and rocks	sand and rocks	rocky banks	rocky banks
Safety	no	no	no	no	no
Land Use					
Public	yes	yes	no	yes	yes
Residential/Wooded	yes	yes	yes	no	no
Industrial/Commercial	no	no	no	yes	yes
Stream Use					
Habitat for Aquatic Species					
Natural riparian	yes	yes	yes	yes	yes
Partially Developed (Subdivision)					
Fully Urbanized Development					
Other Comments					CSO flows into pit, would take a lot of flow to reach creek.

Notes:
1. Overflows per year and volume range were revised June 2004.
2. New bilingual warning signs are being placed at all CSO locations.
3. The data for this CSO was collected in June 2004.
4. Pictures not taken by CSO, additional river pictures.

Andrew Ramsey Park Spray Area
38th Street
65
Riverside Park Pool and Spray Area
Burdsal Parkway Medians
Watkins Park
21st Street
Montcalm Street
Aqueduct Street
Stadium Drive
White River Pkwy W Drive
10th Street
Fall Creek & 16th Park
Dr MLK Jr Drive
Fall Creek Blvd
Capitol Avenue
30th Street
Talbot & 29th Park
Al E. Polin Park
Sluice Gate at CSO 058
Fall Creek Pkwy N Drive
Fall Creek & 30th Park
Inflatable Dams at CSO 063 and 063A
Lot K
Kuhn Park
34th Street
Inflatable Dam at CSO 065
Greenway - Fall Creek
Sutherland Avenue
Fall Creek Pkwy N Drive
Millersville Road
38th Street
Keystone Avenue
Douglass Park Pool
Inflatable Dam at CSO 053
Greenway - Fall Creek
Meridian Street
Illinois Street
Delaware Street
Central Avenue
College Avenue
Guilford Avenue
16th Street
Martin Luther King Park Pool
70
65
N

Legend

- CSO Location
- Fishing
- Playing at Stream Bank
- Swimming
- Wading
- School
- Park Boundary
- Indy Parks' Pools
- Early Action Project

Note: Located upstream of this map, an early action project at CSO 103 will have sewer separation and rehabilitation.

Fall Creek Figure 2-96
Reported and Observed Uses

INDIANAPOLIS CSO LONG-TERM CONTROL PLAN

Use Attainability Analysis

Description of Marion County Streams

Pleasant Run

Criteria	092 PLRPSD and Ridgeview Dr.	091 PLRPSD and Kenmore Rd.	090 Lowell Ave. and Sheridan Ave.	089A [3] PLRPND and Arlington Ave.	089 PLRPND and Arlington Ave.	229 [3] PLRPND and Arlington Ave.	088 PLRPND and Graham Ave.	228 Michigan St. and Graham Ave.	087 PLRPND and Audubon Ave.	227 [3] PLRPND and Audubon Ave.	086 PLRPND and Ritter Ave.
Overflows per year (average) [1]	<1	8	<1	10	25	3	1	<1	32	29	<1
Annual Overflow Volume Range (MG/year) [1]	<1	<1	<1	<1	2-3	1-1	<1	<1	8-11	<1	<1
Other Discharges											
Location											
Type											
Factors that support/encourage recreational use											
School	no	no	no	no	no	no	no	no	no	no	no
Park	no	no	no	no	no	yes	no	no	no	yes	yes
Trail	yes	no	trail leading to stream	golf course paths	golf course paths	no	no	no	no	no	yes
Other	golf course	golf course		church next to it					bus stop		viaduct
Factors that prohibit/discourage recreational use											
Warning Signs/City Ordinance [2]	yes	painted over	painted over	yes	could not locate	yes	could not locate	could not locate	yes	could not locate	yes
Fence	no	no	no	no	gate and bridge	no	no	no	no	no	no
Steep Banks	yes	yes	no	no	no	no	yes	yes	gradual	no	no
Other			no		no	Dense Vegetation	heavy woods	heavy woods	wooded, concrete structure	dense vegetation	some rocks
Access											
North Bank	Moderately Difficult	Moderately Difficult	Moderately Difficult	Moderately Difficult	Extremely Difficult	Moderately Difficult		Extremely Difficult		Moderately Difficult	
South Bank	Extremely Difficult	Extremely Difficult	Extremely Difficult	Moderately Difficult	Extremely Difficult	Moderately Difficult		Extremely Difficult		Easy, backyard	
Stream's Physical Attributes											
Depth	6 inch.	6 inch.	6 inch.	12 inch.	6 inch.	6 inch.	~ 3 inch.	~ 3 inch.	< 1 inch	NA	< 1 inch
Velocity	slow	slow	slow	slow	slow	quick	very slow	very slow	very slow	NA	very slow
Width	20-25 ft.	20-25 ft.	20-25 ft.	30 ft.	20-25 ft.	25 ft.	20 ft.	20 ft.	20 ft.	NA	20 ft.
Substrate	some rocks/sand	some rocks/sand	some rocks/sand	sandy	some rocks/sand	rocky	pebbles	pebbles	pebbles		pebbles
Safety	OK	OK	OK	OK	OK		OK	OK	OK		OK
Land Use											
Public	yes, golf course	yes, golf course	yes, golf course	yes, golf course	yes, golf course	yes	no	no	no	yes	yes
Residential/Wooded	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no
Industrial/Commercial	no	no	no	no	no	no	no	no	no	no	no
Stream Use											
Habitat for Aquatic Species											
Natural riparian	yes	yes	yes	yes	yes	yes	yes	yes	yes		yes
Partially Developed (Subdivision)											
Fully Urbanized Development											
Other Comments										side channel with no flow	

Notes:
1. Overflows per year and volume range were revised June 2004.
2. New bilingual warning signs are being placed at all CSO locations.
3. The data for this CSO was collected in June 2004.
4. Pictures not taken by CSO, additional river pictures.

INDIANAPOLIS CSO LONG-TERM CONTROL PLAN

Use Attainability Analysis

Description of Marion County Streams

Pleasant Run

Criteria	085 PLRPND and Ritter Ave.	084 [3] PLRPND and Michigan St.	154 PLRPND and Michigan St.	083 Hawthorne Ln. and Lowell Ave.	224 PLRPND and Washington St.	081 PLRPND and Riley Ave.	080 PLRPND and Wallace Ave.	079 PLRPND and Linwood Ave.	226 PLRPND and Colorado Ave.	078 PLRPSD and Brookville Rd.	077 PLRPND and Sherman Ave.
Overflows per year (average) [1]	23	28	27	<1	2	<1	29	Eliminated (April 2001)	Eliminated (September 2001)	31	1
Annual Overflow Volume Range (MG/year) [1]	4-5	32-43	9-12	<1	<1	<1	15-20			11-15	<1
Other Discharges											
Location											
Type											
Factors that support/encourage recreational use											
School	no	no	no	no	no	Howe M.S.	Howe H.S.	no	no	no	no
Park	no	yes	yes	no	no	no	no	yes	no	no	yes, ball field
Trail	no	yes	no	leading to stream	yes	no	yes	no	yes	yes	no
Other											
Factors that prohibit/discourage recreational use											
Warning Signs/City Ordinance [2]	yes	yes	yes	yes	yes	yes	yes	could not locate	could not locate	yes	yes
Fence	no	no	no	no	no	no	no	no	no	no	no
Steep Banks	yes	no	yes	no	yes	gradual	no	yes	yes	gradual	yes
Other	no		heavy woods	wooded area	rocky	wall	no			heavy woods	heavy woods
Access											
North Bank		Easy							Extremely Difficult		
South Bank		Easy							Extremely Difficult		
Stream's Physical Attributes											
Depth	< 1 inch	6 inch.	6 inch.	< 6 inch.	1 ft.	1 ft.	< 6 inch.	1 ft.	< 1 inch	1 ft.	6 inch.
Velocity	very slow	quick	slow	slow	slow	slow	slow	slow	slow	slow	slow
Width	20 ft.	20 ft.	20 ft.	20 ft.	20 ft.	20 ft.	20 ft.	20 ft.	20 ft.	20 ft.	20 ft.
Substrate	pebbles	rocky	pebbles	some sand, some rocks	mossy rocks	mossy rocks	some sand, some rocks	rocky	rocks, concrete	rock, concrete	rock, concrete
Safety	OK	OK	OK	OK	no	no	OK	no	OK	OK	OK
Land Use											
Public	yes	yes	no	no	yes	yes	yes	no	yes	no	yes
Residential/Wooded	yes	yes	yes	yes	no	yes	yes	yes	no	yes	yes
Industrial/Commercial	no	no	no	no	commercial	no	no	no	no	no	no
Stream Use											
Habitat for Aquatic Species											
Natural riparian	yes	yes	yes	yes	yes		yes	yes	yes	yes	yes
Partially Developed (Subdivision)						yes					
Fully Urbanized Development											
Other Comments											

Notes:
1. Overflows per year and volume range were revised June 2004.
2. New bilingual warning signs are being placed at all CSO locations.
3. The data for this CSO was collected in June 2004.
4. Pictures not taken by CSO, additional river pictures.

INDIANAPOLIS CSO LONG-TERM CONTROL PLAN

Use Attainability Analysis

Description of Marion County Streams

Pleasant Run

Criteria	076 PLRPSD and English Ave.	075 PLRPND and Southeastern Ave.	074 PLRPND and Prospect St.	073 PLRPND and Keystone Ave.	072 PLRPND and Saint Peter St.	107 PLRPND and Saint Paul St.	108 PLRPSD and Saint Paul St.	109 PLRPND and Churchman Ave.	031 [3] PLRPSD and Chruchman Ave.	106 [3] PLRPND and Orange St.
Overflows per year (average) [1]	29	23	<1	27	4	11	26	3	4	6
Annual Overflow Volume Range (MG/year) [1]	28-37	5-7	<1	9-13	<1	13-18	4-5	<1	1-2	<1
Other Discharges			2		2					
Location			DS of CSO							
Type										
Factors that support/encourage recreational use										
School	no	no	no	no	no	no	no	no	no	no
Park	no	no	no	no	no	no	no	no	no	yes
Trail	by bridge	no	no	no	yes	yes	no	yes	yes	yes
Other										
Factors that prohibit/discourage recreational use										
Warning Signs/City Ordinance [2]	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Fence	no	no	no	no	no	no	no	no	no	no
Steep Banks	no	yes	yes, concrete walls	yes, concrete along bridge	no	gradual	yes	yes	yes, north side	yes
Other		very rocky		heavy woods	heavy woods			dense vegetation		
Access										
North Bank			Extremely Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult		Extremely Difficult	Moderately Difficult
South Bank			Extremely Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult		Moderately Difficult	Moderately Difficult
Stream's Physical Attributes										
Depth	1 ft.	6 inch. - 1 ft.	?	1 ft.	1-2 ft.	6 inch.	6 inch.	6 inch.	2 inch.	< 6 inch.
Velocity	slow	slow	1-2 fps	slow	slow	slow	slow	slow	slow	slow
Width	20 ft.	10 ft.	10-25 ft.	20 ft.	20 ft.	20-25 ft.	20-25 ft.	20-25 ft.	20 ft.	20 ft.
Substrate	rocky	some sand/some rocks	rocks	some sand/some rocks	some sand/some rocks	small rocks, rocks DS	rocky	rocky	rocky	rocky
Safety	OK	dangerous getting down to stream	no	OK	no, slippery rocks	OK	no	no		
Land Use										
Public	no	no	no	no	yes	no	no	no	yes	yes
Residential/Wooded	yes	no	no	yes	yes	yes	yes	yes	yes	yes
Industrial/Commercial	commercial	yes	yes	commercial	no	no	no	no	no	no
Stream Use										
Habitat for Aquatic Species										
Natural riparian	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Partially Developed (Subdivision)										
Fully Urbanized Development										
Other Comments										

Notes:
1. Overflows per year and volume range were revised June 2004.
2. New bilingual warning signs are being placed at all CSO locations.
3. The data for this CSO was collected in June 2004.
4. Pictures not taken by CSO, additional river pictures.

Criteria	030 PLRPSD and Randolph St.	029 Orange St. and Randolph St.	028 PLRPND and State St.	127 1325 S. State and Pleasant Run	027 PLRPSD and Cottage Ave.	025 PLRPND and Shelby St.	023 PLRPND and Iowa St.	119 PLRPSD and Beecher St.	151 PLRPND and Beecher St.	149 PLRPSD and Garfield Dr.
Overflows per year (average) [1]	<1	6	10	4	4	10	7	11	42	8
Annual Overflow Volume Range (MG/year) [1]	<1	<1	2-3	<1	1-2	3-4	2-3	14-19	6-9	20-27
Other Discharges										
Location										
Type										
Factors that support/encourage recreational use										
School	yes, #20	no	no	no	no	no	no	no	no	no
Park	no	yes, Orange park	no	no	yes	no	no	no	no	yes
Trail	no	yes	no	no	no	no	no	yes	yes	yes
Other										
Factors that prohibit/discourage recreational use										
Warning Signs/City Ordinance [2]	yes	yes	yes	yes	yes	could not locate	yes	yes	yes	yes
Fence	no	no	no	no	no	no	no	guard rail	no	no
Steep Banks	yes	gradual	yes	yes	yes	yes	no	gradual	yes	no
Other	dense vegetation		wall	rocky	very rocky access	dense vegetation		dense vegetation	dense vegetation	rocks next to CSO and along bank
Access										
North Bank	Extremely Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult		Moderately Difficult	Extremely Difficult	Extremely Difficult
South Bank	Extremely Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult		Extremely Difficult	Extremely Difficult	Extremely Difficult
Stream's Physical Attributes										
Depth	< 6 inch.	< 6 inch.	6 inch.	6 inch.	6 inch.	6 inch.	6 inch. - 1 ft.	1 ft.	6 inch - 1 ft.	2 ft.
Velocity	slow	slow	slow	slow	slow	~ 1 fps	slow	~ 1 fps	~ 2 fps	very slow
Width	20 ft.	20 ft.	25 ft.	25 ft.	25 ft.	20 ft.	12-20 ft.	20-25 ft.	20-25 ft.	20-25 ft.
Substrate	rocky	rocky	rocky	rocky	rocky	rocky	sand/some rocks	rocky	rocky	sandy, small rocks
Safety	no	no	no	no	no	no	OK	no	no	no
Land Use										
Public	yes	yes	yes	yes	no	yes	no	yes	yes	yes
Residential/Wooded	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Industrial/Commercial	no	no	no	no	no	no	no	no	no	no
Stream Use										
Habitat for Aquatic Species										
Natural riparian	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Partially Developed (Subdivision)										
Fully Urbanized Development										
Other Comments										

Notes:
1. Overflows per year and volume range were revised June 2004.
2. New bilingual warning signs are being placed at all CSO locations.
3. The data for this CSO was collected in June 2004.
4. Pictures not taken by CSO, additional river pictures.

INDIANAPOLIS CSO LONG-TERM CONTROL PLAN

Use Attainability Analysis

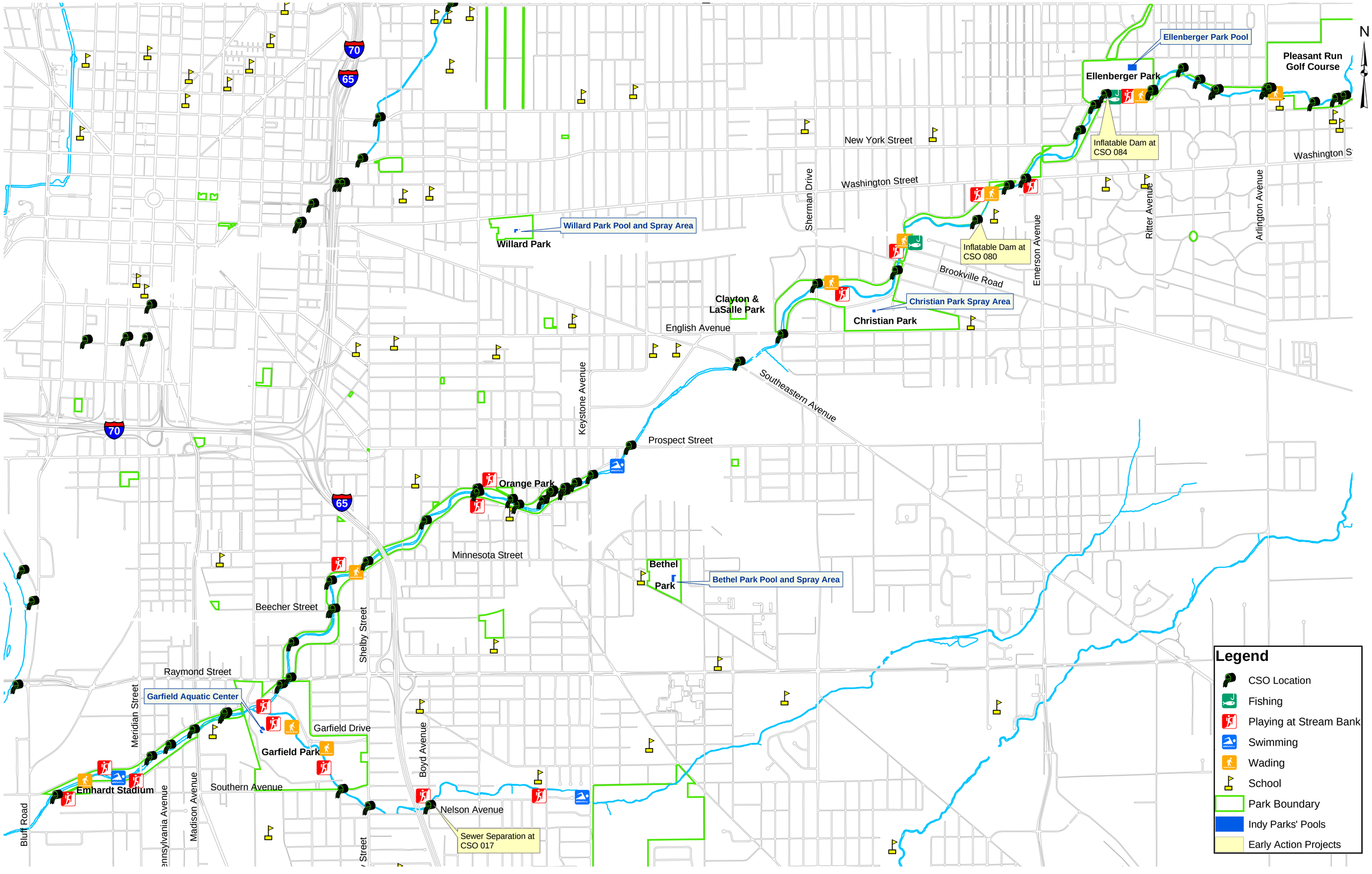
Description of Marion County Streams

Pleasant Run

Pleasant Run via Bean Creek

Criteria	022 PLRPSD and Raymond St.	150 PLRPND and Raymond St.	021 PLRPND and Ransdall St.	130 Manual High School	148 PLRPND and Madison Ave.	020 PLRPND and Pennsylvania St.	019 PLRPND and Meridian St.	120 PLRPSD and Southern Ave.	017 Boyd Ave. and Nelson Ave.	016 Shelby St. and Willow Dr.	015 Southern Ave. and Manker Ave.
Overflows per year (average) [1]	12	56	28	1	22	13	3	24	8	21	10
Annual Overflow Volume Range (MG/year) [1]	11-15	23-31	35-48	<1	1-2	1-1	1-1	31-42	<1	6-9	4-6
Other Discharges											
Location										On Willow	
Type										storm	
Factors that support/encourage recreational use											
School	no	no	yes	yes, Manual H.S.	yes	no	no	no	no	no	no
Park	yes	yes	no	no	no	yes	no	no	no	no	yes
Trail	yes	yes	no	no	no	no	no	no	no	no	no
Other		no							house		
Factors that prohibit/discourage recreational use											
Warning Signs/City Ordinance [2]	yes	yes	yes	yes	yes	yes	yes	could not locate	painted over	yes	yes
Fence	no	no	no	no	no	no	no	along Metal fabrication company property	no	yes	yes
Steep Banks	no	no	gradual	no	gradual	no	yes	no	no	no	yes
Other		rocks	vegetation	no	vegetation	dense vegetation	dense vegetation	vegetation	dense vegetation	dense vegetation	vegetation
Access											
North Bank	Extremely Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult		Extremely Difficult	Extremely Difficult	Moderately Difficult	Extremely Difficult	Extremely Difficult	Moderately Difficult
South Bank	Moderately Difficult	Moderately Difficult	Easy	Easy		Extremely Difficult	Extremely Difficult	Extremely Difficult	Moderately Difficult	Extremely Difficult	Moderately Difficult
Stream's Physical Attributes											
Depth	1 ft.	1-2 ft.	1 ft.	1 ft.	1 ft.	6 inch. - 1 ft.	1-2 ft.	1-2 ft.	6 inch. - 1 ft.	6 inch.	6 inch.
Velocity	~ 1 fps	slow	slow	slow	very slow	very slow	very slow	slow	very slow	very slow	very slow
Width	20 ft.	20 ft.	15-20 ft.	15-20 ft.	20 ft.	15-20 ft.	15-25 ft.	20 ft.	15-20 ft.	15-20 ft.	20 ft.
Substrate	rocky	sandy, small rocks	sand/some rocks	sandy	sandy, small rocks	sand, rocks DS of CSO	small rock	some sand, some rocks	rocky	rocky	rocky
Safety	no	OK	OK	OK	OK	OK	no	no	no	no	no
Land Use											
Public	yes	yes	yes	yes	yes	no	yes	no	no	yes	no
Residential/Wooded	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
Industrial/Commercial	no	no	no	no	no	no	no	yes	no	no	no
Stream Use											
Habitat for Aquatic Species											
Natural riparian	yes	yes	yes	yes	yes	yes	yes	yes	yes		
Partially Developed (Subdivision)										yes	yes
Fully Urbanized Development											
Other Comments											

Notes:
1. Overflows per year and volume range were revised June 2004.
2. New bilingual warning signs are being placed at all CSO locations.
3. The data for this CSO was collected in June 2004.
4. Pictures not taken by CSO, additional river pictures.



Pleasant Run **Figure 2-97**
Reported and Observed Uses

INDIANAPOLIS CSO LONG-TERM CONTROL PLAN

Use Attainability Analysis

Description of Marion County Streams

Pogues Run

Criteria	143 Forest Manor Ave. and 21st St.	102 Forest Manor Ave. and 19th St.	101 Sherman Dr. and BPND	100 BPSD and Rural St.	099 BPSD and Temple Ave.	098 Tacoma Ave. and Nowland Ave.	097 BPSD and Keystone Ave.	096 BPSD and Nowland Ave.	095 BPND and Coyner Ave.	036 Nowland Ave. and Tecumseh St.	[4] Steele and Brookside Ave.	[4] Newman St. and Nowland Ave.
Overflows per year (average)[1]	1	6	10	40	53	2	17	24	2	16		
Annual Overflow Volume Range (MG/year)[1]	<1	3-3	14-19	24-32	155-210	<1	2-2	1-2	1-2	1-1		
Other Discharges												
Location												
Type												
Factors that support/encourage recreational use												
School	no	no	no	no	no	no	no	no	no	no	no	no
Park	yes	ball field	yes, pool and ball field	yes, Spades Park	yes	yes	yes	yes	yes	yes	yes	no
Trail	yes, to CSO	yes	no	no	no	no	no	no	no	leading to CSO, among vegetation	no	no
Other												
Factors that prohibit/discourage recreational use												
Warning Signs/City Ordinance [2]	could not locate	yes	yes	could not locate	could not locate	yes	yes	yes	yes	yes	N/A	N/A
Fence	no	no	yes, around CSO	no	no	no	no	no	no	no	no	yes
Steep Banks	yes	gradual	yes	yes on west side	no	gradual	gradual	gradual	gradual	gradual	no	yes
Other	dense vegetation		dense vegetation	dense vegetation	dense vegetation on south side					dense vegetation, but accessible	dense vegetation, but accessible	concrete wall and dense vegetation
Access												
North Bank	Extremely Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult	Moderately Difficult	Extremely Difficult	Extremely Difficult	Moderately Difficult		Extremely Difficult	Moderately Difficult	Extremely Difficult
South Bank	Extremely Difficult	Moderately Difficult	Extremely Difficult	Extremely Difficult	Extremely Difficult	Moderately Difficult	Moderately Difficult	Moderately Difficult		Extremely Difficult	Moderately Difficult	Extremely Difficult
Stream's Physical Attributes												
Depth	1 ft.	1 -2 ft.	1 -2 ft.	6 inches	6 inches	6 inch - 1 ft.	6 inch - 1 ft.	6 inch - 1 ft.	6 inch - 1 ft.	6 inch - 1 ft.	6 inch - 1 ft.	6 inch - 1 ft.
Velocity	very slow	slow	slow	slow	slow	slow	slow	slow	slow	slow	slow	slow
Width	15 ft.	10 - 15 ft.	10 - 15 ft.	10 - 15 ft.	10 - 15 ft.	10 - 15 ft.	10 - 15 ft.	10 - 15 ft.	10 - 15 ft.	10 ft.	10 ft.	10 ft.
Substrate	rocky	sand and rocks	sand and rocks	rocky	rocky	rocky	rocky	rocky	rocky	rocky	rocky	rocky
Safety	no	no	no	no	no	no	no	no	no	no	no	no
Land Use												
Public	yes	yes	yes	no	no	no	no	no	no	no	no	no
Residential/Wooded	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Industrial/Commercial	no	no	no	no	no	no	no	no	no	no	no	no
Stream Use												
Habitat for Aquatic Species												
Natural riparian	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	
Partially Developed (Subdivision)												yes
Fully Urbanized Development												
Other Comments			In Brookside Park by ball field tucked back deep in woods, no sign outside of very dense woods									

Notes:
1. Overflows per year and volume range were revised June 2004.
2. New bilingual warning signs are being placed at all CSO locations.
3. The data for this CSO was collected in June 2004.
4. Pictures not taken by CSO, additional river pictures.

INDIANAPOLIS CSO LONG-TERM CONTROL PLAN

Use Attainability Analysis

Description of Marion County Streams

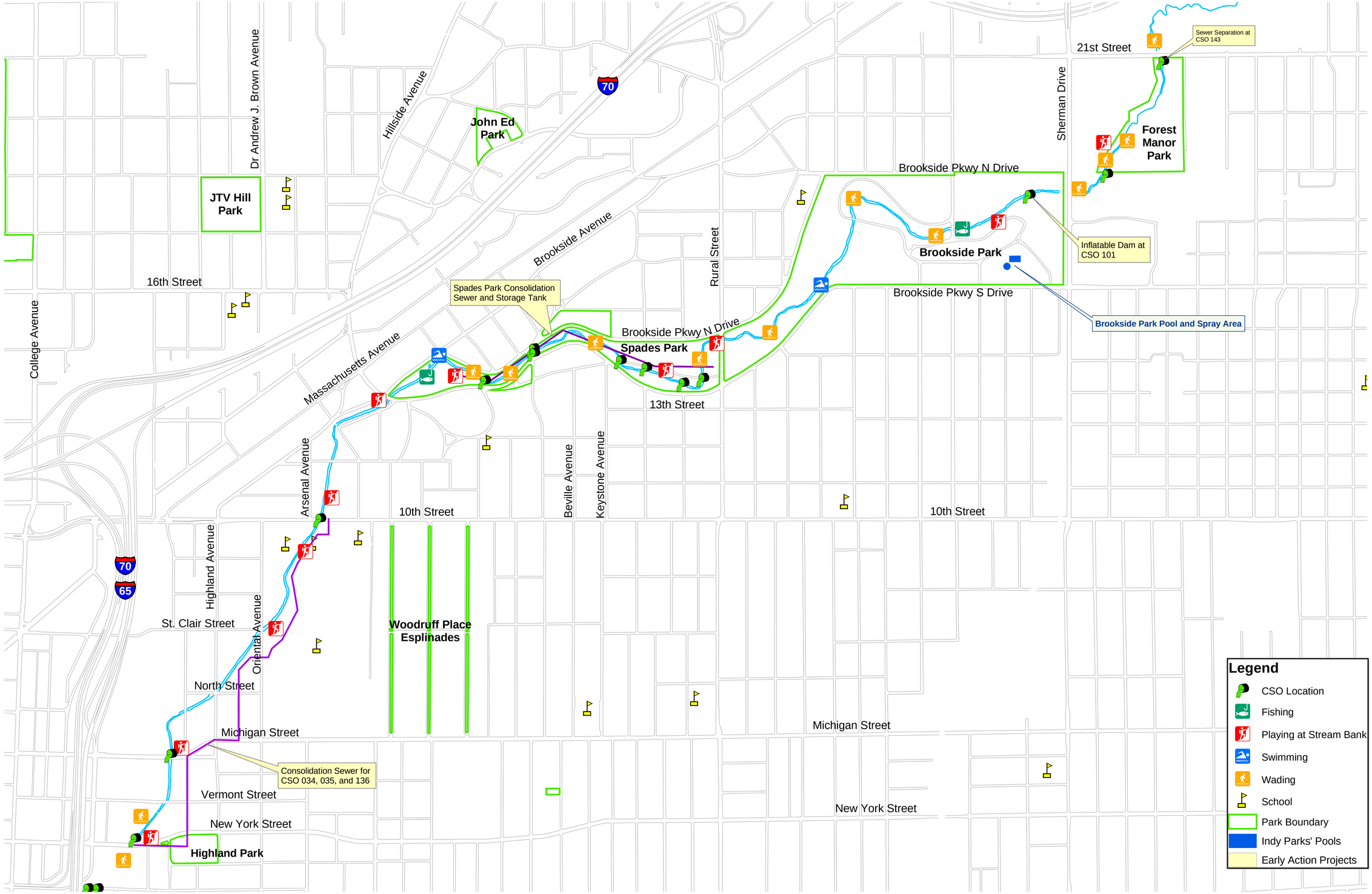
Pogues Run

Criteria	035 Arsenal Ave. and 10th St.	034 Michigan St. and Dorman Ave.	034A [3] 548 Dorman Ave.	[4] Vermont St.and Dorman St.	136 New York St. and Dorman Ave.	137 Pine St. and Ohio St.	152 Pine St. and Ohio St.	133 Market St. and Pine St.	138 College Ave. and Washington St.	125 Meridian St. and South St.	129 Meridian St. and Merrill St.	153 Illinois Ave. and Merrill St.
Overflows per year (average) [1]	31	19			12	5	48	13	4	9	4	8
Annual Overflow Volume Range (MG/year) [1]	24-32	56-76			1-1	<1	77-104	4-6	<1	26-35	2-2	<1
Other Discharges												
Location					**In Pogues Run Tunnel**	**In Pogues Run Tunnel**	**In Pogues Run Tunnel**	**In Pogues Run Tunnel**	**In Pogues Run Tunnel**	**In Pogues Run Tunnel**	**In Pogues Run Tunnel**	**In Pogues Run Tunnel**
Type												
Factors that support/encourage recreational use												
School	yes, 101	no	no	no								
Park	no	no	no	no								
Trail	no	no	no	no								
Other												
Factors that prohibit/discourage recreational use												
Warning Signs/City Ordinance [2]	yes	yes, near CSO	could not locate	N/A								
Fence	no	no	no	no								
Steep Banks	no	no	no	concrete slope on east bank upstream from bridge								
Other		vegetation	vegetation	dense vegetation and rocks on west bank								
Access												
North Bank	Easy	Extremely Difficult	Easy	Extremely Difficult								
South Bank	Easy	Extremely Difficult	Easy	Moderately Difficult								
Stream's Physical Attributes												
Depth	6 inch - 1 ft.	6 inch - 1 ft.	3 inch.	6 inch - 1 ft.								
Velocity	slow	slow	slow	slow								
Width	5 - 8 ft.	10 ft.	8 ft.	10 ft.								
Substrate	mostly rocky	rocky	rocky	rocky								
Safety	OK	no	no	no								
Land Use												
Public	yes	yes	no	no								
Residential/Wooded	yes	no	yes	yes								
Industrial/Commercial	no	no	no	yes								
Stream Use												
Habitat for Aquatic Species												
Natural riparian	yes	yes		yes, on east bank								
Partially Developed (Subdivision)			yes									
Fully Urbanized Development				yes, on west bank								
Other Comments		very strong smelling										

Notes:
1. Overflows per year and volume range were revised June 2004.
2. New bilingual warning signs are being placed at all CSO locations.
3. The data for this CSO was collected in June 2004.
4. Pictures not taken by CSO, additional river pictures.

	128	115	A38
Criteria	Senate Ave. and Merrill St.	Henry St. and Kentucky Ave.	Davidson St. and Washington St.
Overflows per year (average) [1]	33	79	28
Annual Overflow Volume Range (MG/year) [1]	131-177	378-512	41-55
Other Discharges			
Location	**In Pogues Run**	**In Pogues Run**	**In Pogues Run**
Type	**Tunnel**	**Tunnel**	**Tunnel**
Factors that support/encourage recreational use			
School			
Park			
Trail			
Other			
Factors that prohibit/discourage recreational use			
Warning Signs/City Ordinance [2]			
Fence			
Steep Banks			
Other			
Access			
North Bank			
South Bank			
Stream's Physical Attributes			
Depth			
Velocity			
Width			
Substrate			
Safety			
Land Use			
Public			
Residential/Wooded			
Industrial/Commercial			
Stream Use			
Habitat for Aquatic Species			
Natural riparian			
Partially Developed (Subdivision)			
Fully Urbanized Development			
Other Comments			

Notes:
1. Overflows per year and volume range were revised June 2004.
2. New bilingual warning signs are being placed at all CSO locations.
3. The data for this CSO was collected in June 2004.
4. Pictures not taken by CSO, additional river pictures.



Note: There is also an early action project for Pogues Run on converting part of the tunnel for storage.

Pogues Run **Figure 2-98**
Reported and Observed Uses